

Atchafalaya Measurement, Inc.
416 East Main Street
Artesia, NM 88210

8/9/2017 9:04 AM
Phone: 575-746-3481
888-421-9453
Fax: 575-748-9852
jhernandez@ami.email

GAS ANALYSIS REPORT

Analysis For: OXY USA, INC.
Field Name: CEDAR CANYON
Well Name: HARROUN "22" #1
Station Number: 83253
Purpose: QUARTERLY
Sample Deg. F: 60.0
Volume/Day:
Formation:
Line PSIG: 84.3
Line PSIA: 97.5

Run No: 2170809-04
Date Run: 08/09/2017
Date Sampled: 08/08/2017
Producer: OXY USA, INC.
County: EDDY
State: NM
Sampled By: DESTRY MOORE
Atmos Deg. F: 85

GAS COMPONENTS			
		MOL%	GPM
Oxygen	O2:	0.0000	
Carbon Dioxide	CO2:	0.2543	
Nitrogen	N2:	4.8909	
Hydrogen Sulfide	H2S:	0.0000	
Methane	C1:	71.4390	
Ethane	C2:	11.5649	3.0753
Propane	C3:	7.1438	1.9569
Iso-Butane	IC4:	0.8453	0.2750
Nor-Butane	NC4:	2.1001	0.6583
Iso-Pentane	IC5:	0.5218	0.1897
Nor-Pentanes	NC5:	0.5223	0.1882
Hexanes Plus	C6+:	0.7176	0.3103
Totals		100.0000	6.6537

Pressure Base: 14.650
Real BTU Dry: 1281.647
Real BTU Wet: 1259.149

Calc. Ideal Gravity: 0.7839
Calc. Real Gravity: 0.7867
Field Gravity:
Standard Pressure: 14.696
Ideal BTU Dry: 1280.563
Ideal BTU Wet: 1258.282
Z Factor: 0.9961
Average Mol Weight: 22.7041
Average CuFt/Gal: 55.1689
26 lb. Product: 1.0467
Ethane+ GPM: 6.6539
Propane+ GPM: 3.5785
Butane+ GPM: 1.6216
Pentane+ GPM: 0.6883

Remarks:
H2S IN GAS STREAM ON LOCATION: NONE DETECTED

Analysis By: James Hernandez

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM**Facility:** Harroun 22-1 CTB**Date:** 06/07/2021**Duration of event:** 5 Hours 30 Minutes**MCF Flared:** 1368**Start Time:** 10:00 AM**End Time:** 03:30 PM**Cause:** Downstream Activity Issue > Enterprise > Facility Shutdown > PLC Automation Issues**Method of Flared Gas Measurement:** Gas Flare Meter**Well API Associated with Facility:** 30-015-28639 Harroun 22 #001

Comments: This upset event was not caused by any wells associated with the facility. The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline.

1. Reason why this event was beyond Operator's control:

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is Oxy's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible.

This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. In this case, this was a sudden and unexpected flaring event due to third party pipeline operator, Enterprise, whose downstream mid-stream facility was shut down due their PLC having an ESD automation issue that would not clear. The problem occurred downstream of Oxy's custody transfer point and is out of Oxy's control to prevent and/or avoid from happening. As this is not an Oxy owned or operated station, we have no control over how Enterprise operates and maintains their downstream facility equipment therefore we could not prevent this from occurring. The shutdown of Enterprise's mid-stream downstream facility greatly impacted the gas flow from Oxy's upstream facility to their gas pipeline and causing an immediate spike in high line pressure in their pipeline, which triggered a flaring event at Oxy's upstream facility. This event was out of Oxy's control to foresee, avoid or prevent from happening, yet Oxy made every effort to minimize emissions as much as possible.

2. Steps Taken to limit duration and magnitude of venting or flaring:

The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from

happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is Oxy's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible.

In the case, it is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring. Once flaring began and was noticed by Oxy's field personnel, an Oxy field technician quickly arrived at the site and inspected the equipment to determine cause of flaring. Finding no cause with Oxy's upstream facility, except for a high-pressure pipeline psi, which restricted the volume of gas the Enterprise gas system pipeline was accepting. An Oxy production tech quickly contacted Enterprise personnel about the unforeseeable pipeline restriction and/or disruption, which caused flaring, and when normal working operational service would be restored. Oxy tech was informed that the cause of the disruption and/or restriction of Enterprise's gas system pipeline was due their downstream compressor station was shut down to an automation issue with their PLC prompting an ESD of their facility that would not clear. Enterprise personnel also informed Oxy production techs that they had multiple techs on-site at their facility attempting to resolve the issues and that a potential time of returning gas services could not be provided.

In an effort to minimize emissions during Enterprise's gas restriction and/or disruption of their gas system pipeline, which impacted Oxy's upstream facility and its ability to send gas to them, the Oxy tech then contacted production techs at the nearest associated Oxy facility, Section 8 station, to start all spare compression equipment to reduce the gas flare volume, until such time Enterprise was able to resolve their downstream facility issues and resume normal working service. Flaring ceased when Enterprise resolved their downstream facility issues.

3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of an interruption, restriction or complete shut-in of the gas system pipeline by a third-party pipeline operator, as this issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening again. Enterprise's downstream facility issues will re-occur from time to time and which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise's downstream facility equipment has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then initiates Oxy to route all of its stranded gas not pushed into the Enterprise gas pipeline, to flare. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to keep continually communicate with Enterprise personnel during these types of circumstances.

District I

1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 48739

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 48739
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS**Prerequisites**

Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.

Incident Well	[30-015-28639] HARROUN 22 #001
Incident Facility	Not answered.

Determination of Reporting Requirements

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.

Was or is this venting and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/or flaring last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a venting and/or flaring event	Yes, major venting and/or flaring of natural gas.
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.	
Was there or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/or flaring result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the venting and/or flaring within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved

Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Emergency Flare > Downstream Activity Issue > Enterprise > Facility Shutdown > PLC Automation Issues

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	71
Nitrogen (N2) percentage, if greater than one percent	5
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	0
Oxygen (O2) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

Date(s) and Time(s)

Date venting and/or flaring was discovered or commenced	06/07/2021
Time venting and/or flaring was discovered or commenced	10:00 AM
Time venting and/or flaring was terminated	03:30 PM
Cumulative hours during this event	6

Measured or Estimated Volume of Vented or Flared Natural Gas

Natural Gas Vented (Mcf) Details	Not answered.
----------------------------------	---------------

Natural Gas Flared (Mcf) Details	Cause: Other Other (Specify) Natural Gas Flared Released: 1,368 Mcf Recovered: 0 Mcf Lost: 1,368 Mcf]
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Gas Flare Meter
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was or is this venting and/or flaring a result of downstream activity	Yes
Was notification of downstream activity received by you or your operator	No
Downstream OGRID that should have notified you or your operator	[713731] Enterprise Crude Pipeline LLC
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/or flaring	Not answered.

Steps and Actions to Prevent Waste	
For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your operator's control	See Justification Form > The emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable interruption, restriction or complete shut-in of a gas pipeline by a third-party pipeline operator, which impacted Oxy's ability to send gas to a third-party gas pipeline. This interruption, restriction or complete shut-in of the gas pipeline by a third-party pipeline operator is downstream of Oxy's custody transfer point and out of Oxy's control to avoid or prevent from happening and did not stem from any of Oxy's upstream facility activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. It is Oxy's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, in order to minimize emissions as much as possible. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible.
Steps taken to limit the duration and magnitude of venting and/or flaring	See Justification Form > In the case, it is OXY's policy to route all stranded sales gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring. Once flaring began and was noticed by Oxy's field personnel, an Oxy field technician quickly arrived at the site and inspected the equipment to determine cause of flaring. Finding no cause with Oxy's upstream facility, except for a high-pressure pipeline psi, which restricted the volume of gas the Enterprise gas system pipeline was accepting. An Oxy production tech quickly contacted Enterprise personnel about the unforeseeable pipeline restriction and/or disruption, which caused flaring, and when normal working operational service would be restored. Oxy tech was informed that the cause of the disruption and/or restriction of Enterprise's gas system pipeline was due their downstream compressor station was shut down to an automation issue with their PLC prompting an ESD of their facility that would not clear. Enterprise personnel also informed Oxy production techs that they had multiple techs on-site at their facility attempting to resolve the issues and that a potential time of returning gas services could not be provided.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	See Justification Form > Oxy cannot take any corrective actions to eliminate the cause and potential reoccurrence of an interruption, restriction or complete shut-in of the gas system pipeline by a third-party pipeline operator, as this issue is downstream of Oxy's custody transfer point and out of Oxy's control to foresee, avoid or prevent from happening again. Enterprise's downstream facility issues will re-occur from time to time and which in turn, directly impacts Oxy's ability to send gas to them. When Enterprise's downstream facility equipment has issues or greatly struggles to handle the volume of gas being sent to them by Oxy, Enterprise then restricts Oxy's ability to send gas, which then initiates Oxy to route all of its stranded gas not pushed into the Enterprise gas pipeline, to flare. OXY makes every effort to control and minimize emissions as much as possible. The only actions that Oxy can take and handle that is within its control, is to keep continually communicate with Enterprise personnel during these types of circumstances.

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 48739

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 48739
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	9/14/2021